

STATIONARY SOURCE PERMIT TO OPERATE
This permit includes designated equipment subject to
National Emission Standards for Hazardous Air Pollutants for
Brick and Structural Clay Ceramics Manufacturing.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Old Virginia Brick Co. – Salem Plant
P. O. Box 508
Salem, VA 24153
Registration No.: 20302
AIRS ID No.: 51-161-0001

is authorized to operate

a brick manufacturing facility

located at

2500 West Main Street
Salem, VA

in accordance with the Conditions of this permit.

Approved on DRAFT.

Robert G. Burnley
Director, Department of Environmental Quality

Permit consists of 7 pages.
Permit Conditions 1 to 20 .

PERMIT CONDITIONS - the regulatory reference or authority for each condition is listed in parentheses () after each condition.

APPLICATION

1. Except as specified in this permit, the permitted facility is to be operated as represented in the permit application dated February 4, 2004, including amendment information dated March 12, 2004 and May 18, 2004. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.
(9 VAC 5-80-830)
2. **Equipment List** - Equipment to be operated at this facility consists of:
 - two natural gas/propane fired tunnel kilns (KIL3 and KIL4), each rated at 26 million BTU/hr input (NESHAPS Subpart JJJJ)
3. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-80-880)

OPERATING/EMISSION LIMITATIONS

4. **Production** - The production of fired bricks from each kiln shall not exceed 9.9 tons per hour, calculated ~~hourly~~ **monthly** as a 12 month rolling average (i.e., **production during each 12 month period divided by 8760 hours per year**).
(9 VAC 5-80-850)
5. **Production** - The production of fired bricks from both kilns (combined) shall not exceed 100,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-850)
6. **Fuel** - The approved fuels for the tunnel kilns are natural gas and propane. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)
7. **Emission Limits** - Emissions from the operation of **each** tunnel kiln shall not exceed the limits specified below:

Particulate Matter	11.4 lbs/hr
PM-10	11.4 lbs/hr
Sulfur Dioxide	8.0 lbs/hr
Nitrogen Oxides (as NO ₂)	4.2 lbs/hr
Carbon Monoxide	14.3 lbs/hr
Volatile Organic Compounds	0.3 lbs/hr
Lead	1.8×10^{-3} lbs/hr
Hydrogen Fluoride	4.4 lbs/hr
Hydrogen Chloride	2.0 lbs/hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition number 4.
 (9 VAC 5-80-850)

8. **Emission Limits** - Emissions from the operation of the two tunnel kilns (**combined**) shall not exceed the limits specified below:

Particulate Matter	57.6 tons/yr
PM-10	57.6 tons/yr
Sulfur Dioxide	40.2 tons/yr
Nitrogen Oxides (as NO ₂)	21.0 tons/yr
Carbon Monoxide	72.0 tons/yr
Volatile Organic Compounds	1.4 tons/yr
Lead	9.0×10^{-3} tons/yr

Hydrogen Fluoride 22.2 tons/yr

Hydrogen Chloride 10.2 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition number 5.

(9 VAC 5-80-850)

9. Toxics, Hazardous Air Pollutants

- a. The permittee shall operate this facility in compliance with 9 VAC 5 Chapter 60, Part II, Article 4 (9 VAC 5-60-200 et seq.) for all toxic compounds or HAPs.
- b. If a permit is required, failure to obtain the permit prior to the change in process formulation or the use of any additional toxic compound or HAP may result in enforcement action.

(9 VAC 5-80-850)

- 10. Visible Emission Limit** - Visible emissions from the tunnel kilns shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-850)

RECORDS

- 11. On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Region. These records shall include, but are not limited to:

- a. Hourly production of fired bricks from each kiln, calculated ~~hourly~~ monthly as a 12 month rolling average as defined in Condition number 4.
- b. Annual production of fired bricks from both kilns (combined), calculated monthly as the sum of each consecutive 12 month period.
- c. Annual throughput of natural gas and propane (in million cubic feet) to the two tunnel kilns (combined), calculated monthly as the sum of each consecutive 12 month period.

- d. All fuel supplier certifications.
- e. Records of the applicability determinations required under 40 CFR 63.10(b)(3), demonstrating the applicability status of the tunnel kilns with regard to 40 CFR 63, Subpart JJJJ.
- f. All other records required under 40 CFR 63, Subpart A (General Provisions) as they apply to 40 CFR 63, Subpart JJJJ.
- g. The pollutant-specific emission factors relied upon for the purpose of calculating actual emission rates, and associated equations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-40-50 and 9 VAC 5-80-900)

GENERAL CONDITIONS

12. Right of Entry - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-170-130)

13. Notification for Facility or Control Equipment Malfunction - The permittee shall furnish notification to the Director, West Central Region of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the

malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, West Central Region in writing.

(9 VAC 5-20-180 C)

14. Facility or Control Equipment Malfunction - Hazardous Air Pollutant Processes –

Tunnel kilns 3 and 4 shall, upon request of the Department, shut down immediately if their emissions increase in any amount because of a bypass, malfunction, shutdown or failure of the process. The processes shall not return to operation until they are able to operate in the proper manner.

(9 VAC 5-20-180 F 3)

15. Violation of Ambient Air Quality Standard - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-20-180 I)

16. Maintenance/Operating Procedures - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-40-20 E)

17. Permit Suspension/Revocation - This permit may be suspended or revoked if the permittee:

- a. Knowingly makes material misstatements in the application for this permit or any amendments to it;

- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to the equipment listed in Condition 2;
- d. Causes emissions from this facility which result in violations of, or interfere with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;
- f. Fails to comply with the applicable provisions of 9 VAC 5-80-10, and Articles 8 and 9 of 9 VAC 5 Chapter 80.

(9 VAC 5-80-1010)

18. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the West Central Region of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-940)

19. **Registration/Update** - Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.
(9 VAC 5-80-900)

20. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)